Appl. No. 10/688,329
Resubmitted Amdt. dated May 29, 2008
Reply to Office Action of January 8, 2008

PATENT

PREAMBLE

In a telephone call from the examiner on May 29, 2008, it was learned that claims 37-39 were inadvertently omitted. A review of the amendment reveals that remarks concerning independent claim 37 were omitted. The undersigned would like to thank the examiner for the opportunity to correct the oversight.

Applicant resubmits the remarks as originally filed on March 10, 2008, and includes a complete set of claims. The following additional remark is made:

Claim 37 was rejected on the same grounds as the rejection of claim 1. Claim 37 has been amended in a manner similar to claim 1. Claim 37 is believed to distinguish over the art for at least the same reason as explained for claim 1.

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REMARKS/ARGUMENTS

Claims 1, 10, 17, 20, 23, and 33 are amended by this response. No new matter has been introduced. Support for the amended claims may be found at least in Figure 6 and ¶[0037]-¶[0038] of the specification as originally filed. No claims were added. Accordingly, following entry of these amendments and remarks, claims 1-2, 4-17, and 19-39 will remain pending for examination.

Claims 1, 10, 17, 20, 23, and 33 were rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 6,718,447 (hereafter "Cochran") in view of U.S. Patent No. 6,775,792 (hereafter "Ulrich"). These rejections are traversed as follows.

Independent claim 1 recites in part:

wherein client systems can access files on the first file system only via the file server,
wherein client systems can access files on the second file system directly, absent the file server, ...

The examiner cited Cochran at column 8, lines 3-14 generally for teaching this limitation, among others. However, since Cochran does not teach a second file system (as the examiner admitted), it follows that Cochran cannot teach "wherein client systems can access files on the first file system only via the file server, wherein client systems can access files on the second file system directly, absent the file server."

Ulrich was relied on for teaching a second file system, however, Fig. 1 of Ulrich clearly shows nodes 150, 151, etc. being accessed via servers 130-135. Col. 19, line 65 to col. 51-63. Ulrich therefore does not show "wherein client systems can access files on the first file system only via the file server, wherein client systems can access files on the second file system directly, absent the file server," as recited in claim 1.

Independent claim 1 further recites in part:

when the file has not been copied to a second file system different from the first file system, then creating a copy of the file on the second file system having a filename the same as the file, otherwise creating a copy of the file on the second file system having a filename different from the file... (Emphasis added.)

Neither Cochran nor Ulrich teach this feature.

Cochran teaches an application program running on a host computer, the application program generates I/O requests, and the I/O requests are transmitted via a communication medium to a disk array. When a write request is transmitted to a first disk array, the write request is executed by a controller on a primary LUN to write data thereon and queued up in an input queue of a second disk array which contains the backup LUN. Col. 6, lines 9-17.

Cochran does not teach storing a file on the second disk array with different filenames based on whether the file had been copied to the second disk array or not. Rather, Cochran mirrors write requests on the second disk array, irrespective of the nature of the write requests. Cochran therefore does not teach or even suggest "when the file has not been copied to a second file system different from the first file system, then creating a copy of the file on the second file system having a filename the same as the file, otherwise creating a copy of the file on the second file system having a filename different from the file."

Ulrich teaches a computer network file storage system comprised of first and second file servers connected to a network fabric, first and second disk arrays connected to both the first and second files servers, and first and second file system information residing on the first and second file servers, respectively. Col. 6, lines 41-51. The file system information includes a first and second intent log (corresponding to the first and second file servers, respectively), and both the first and second file servers are loaded with both the first and second intent logs. Col. 6, lines 48-55. The intent logs allow one file server to access the other in the event the other fails. Col. 6, lines 53-57. Ulrich's intent logs, however, do not teach storing a

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file on the second disk array with different filenames based on whether the file had been copied to the second disk array or not. Ulrich's intent logs have nothing to do with copying files, but rather with allowing a surviving file server to access files on a failed file server.

Ulrich further teaches first and second file system metadata, describing fields and directories stored by the first and second file servers, respectively. Col. 7, lines 41-47. The first and second file system metadata also include directory information that spans both the first and second file servers. Col. 7, lines 47-50. In this way, a requestor can find a file without prior knowledge of the file's location. Col. 7, lines 50-55. Ulrich's metadata does not teach or suggest storing a file on the second disk array with different filenames based on whether the file had been copied to the second disk array or not. The metadata simply facilitates the task of finding a file without requiring prior knowledge of a file's location.

Ulrich further discusses the notion of file mirroring in the context of load balancing and fault tolerance. Col. 17, lines 1-8, col. 20, lines 30-35. Ulrich, however, does not provide any details as to the mirroring operation, and thus cannot be fairly construed to teach "when the file has not been copied to a second file system different from the first file system, then creating a copy of the file on the second file system having a filename the same as the file, otherwise creating a copy of the file on the second file system having a filename different from the file."

Neither reference to Cochran nor Ulrich teaches the claimed invention. Consequently, their combined teachings likewise fail to teach the claimed invention.

Independent claims 1, 10, 17, 20, 23, and 33 should be allowed for these reasons. Dependent claims 2, 4-9, 11-16, 19, 21, 22, 24-32, 34-36, 38, and 39 depend from the above independent claims, and should be allowed or similar reasons and the additional limitations they recite.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted

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